

groups; coxae fused with body; legs sparsely haired; tarsi with two claws and a small clawlike pulvillus; tarsus I with two short rodlike setae.

Type.—*Neotydeus ardisanneae*, n. sp.

***Neotydeus ardisanneae*, n. sp.**

Female.—Small, 366 μ long; without shields, skin striate; with pseudotracheae as figured (Fig. 2); palpi (Figs. 2, 4, 5) 4-segmented, without claw-thumb complex, segment II with two dorsal setae, segment III with three setae, segment IV terminal, with three terminal rodlike setae, a lateral clublike seta, and four simple setae; cheliceral bases apparently not fused, each with a dorsal distal seta; movable chela (Fig. 5) short, heavy, strongly curved, fixed chela degenerate, not visible; venter of gnathosoma with three pairs of simple setae and a pair of lateral setae (these are the setae described as the lateral cheliceral setae in *Paratydeus alexanderi* Baker); body elongate; propodosoma and hysterosoma (Fig. 1) divided by a transverse suture; propodosoma (Fig. 2) without eyes, with a single pair of long sensory setae, an anterior pair of short simple setae, a lateral pair of serrate setae, two pairs of short lateral, peglike setae above trochanter I;

hysterosoma (Fig. 1) divided into three parts by two transverse sutures behind posterior coxae; anterior portion of hysterosoma with a transverse row of four setae, middle section with two setae, and posterior section with six pairs of short setae as figured; anal opening (Fig. 3) on venter at rear; genital opening approaching anal opening, with four pairs of genital and four pairs of accessory setae, and two pairs of genital suckers; coxae in two distinct groups, fused with body; legs with a few short simple setae; all tarsi with a pair of claws and a small clawlike pulvillus; tarsus I (Fig. 6) with two rodlike sensory setae; tibia and genu I each with a single rodlike seta; tarsus, tibia (Fig. 7) and genu II each with a single rodlike seta; tibia III with a similar seta.

Male.—Not known.

Twelve specimens, all females, 1 designated as type and 11 as paratypes, were collected in leaf trash, Sanburn, Johnson County, Ill., on September 20, 1949, by Philip W. Smith and Lewis J. Stannard.

Type.—U. S. N. M. no. 1899. Two of the paratypes are to be deposited in the Illinois Natural History Survey, Urbana, Ill.

The mite is named for my daughter, Ardis Anne Baker.

ZOOLOGY.—A synopsis of the ostracod genus *Cypricercus*, with a description of one new species from Wyoming.¹ WILLIS L. TRESSLER, College Park, Md.

The fresh-water Ostracoda described as a new species in this report were collected from a moraine pond in the Medicine Bow Mountains of Wyoming in 1936 by Dr. Irving H. Blake, of the University of Nebraska, and were sent to the United States National Museum for identification. The genera *Cypricercus* and *Strandesia* have been somewhat confused in recent years, and as an aid to future workers in the field it has been thought advisable to make a brief synopsis of the known species of *Cypricercus*. These species, which may with certainty be referred to the genus *Cypricercus*, total 19 at the end of the year 1949.

The genus *Cypricercus* was established in 1895 by Georg Ossian Sars to include a South African species, *C. cunctatus* Sars. This form was characterized by the powerfully

developed caudal rami and by the spirally coiled spermathecae in the male. The genus *Strandesia* Stuhlman (1888) [*Acanthocypris* Claus (1892); *Neocypris* Sars (1901)] is closely allied to *Cypricercus* Sars, and the two have been combined by G. W. Müller (1912) in one genus, *Strandesia*. It was the opinion of Sars and later of Furtos (1933) that these two genera should be kept separate. I concur in this opinion for the following reasons: (1) *Strandesia* appears to reproduce exclusively by parthenogenesis, whereas *Cypricercus* has sexual reproduction; (2) the caudal rami are more powerfully developed in *Cypricercus*; and (3) *Strandesia*, as far as is now known, is restricted to southern regions, whereas *Cypricercus* is found in both northern and southern localities. Sars (1928) has also included several species that had heretofore been included in the genus *Eucypris* and that are now held to be valid and are included in the present paper. Sharpe (1903,

¹ A contribution from the Zoology Department of the University of Maryland. Received May 25, 1950.

1908) described two new species for which he established the genus *Spirocypris*. These forms were characterized by spirally coiled spermatid vessels and unquestionably belong to the genus *Cypricercus*.

In the present synopsis I have attempted the use of the little-known formula-type key. According to Edmondson (1949) the formula-type key was invented by J. F. Meyers and was first published by Wulfort (1938) as a key for the rotifer genus *Cephalodella*. Edmondson (1949) published a formula key for the rotifer genus *Ptygura* and discussed the advantages and disadvantages of this type of key as compared with dichotomous and indented keys such as are commonly used. Edmondson gave complete directions for the preparation of formula keys in his publication. The formula key seems to be ideally adapted for use with Ostracoda.

In using the key to identify a specimen, examine the list of characters one by one, writing down the numbers of the statements that are found to be true of the specimen at hand. Strongly developed or unique characters are printed in boldface numbers. The resulting formula is then compared with the list of formulae for known species until one is found that agrees with that describing the unknown specimen. By referring to the literature cited, identification may be made positive by comparison with drawings and complete descriptions. The number in parentheses immediately preceding the species name is the number of the publication that clearly figures and describes the species in question.

The slide of the dissected specimen, from which the description of the new species reported on in this paper was made, has been deposited as a type specimen in the United States National Museum.

Genus *Cypricercus* Sars, 1895

Cypricercus Sars, Skr. Vidensk. Christiania, no. 8: 37. 1895.

Neocypris Sars, Arch. Naturv. Christiania 24(1): 29. 1901.

Spirocypris Sharpe, Proc. U. S. Nat. Mus. 26: 981. 1903.

Strandesia G. W. Müller, Das Tierreich 31: 186. 1912.

Cypricercus Sars, Crust. Norway 9: 117. 1928.

Valves elongated, moderately compressed to tumid, higher in front than behind. Left valve projects slightly beyond right in front. Third masticatory process of maxilla with two well-developed spines. Furcal ramus long and slender but not so powerfully developed as in *Strandesia*. Reproduction by sexual means; the testis is coiled in the anterior valve chamber. Terminal claw of furca equal to about half the length of the ramus.

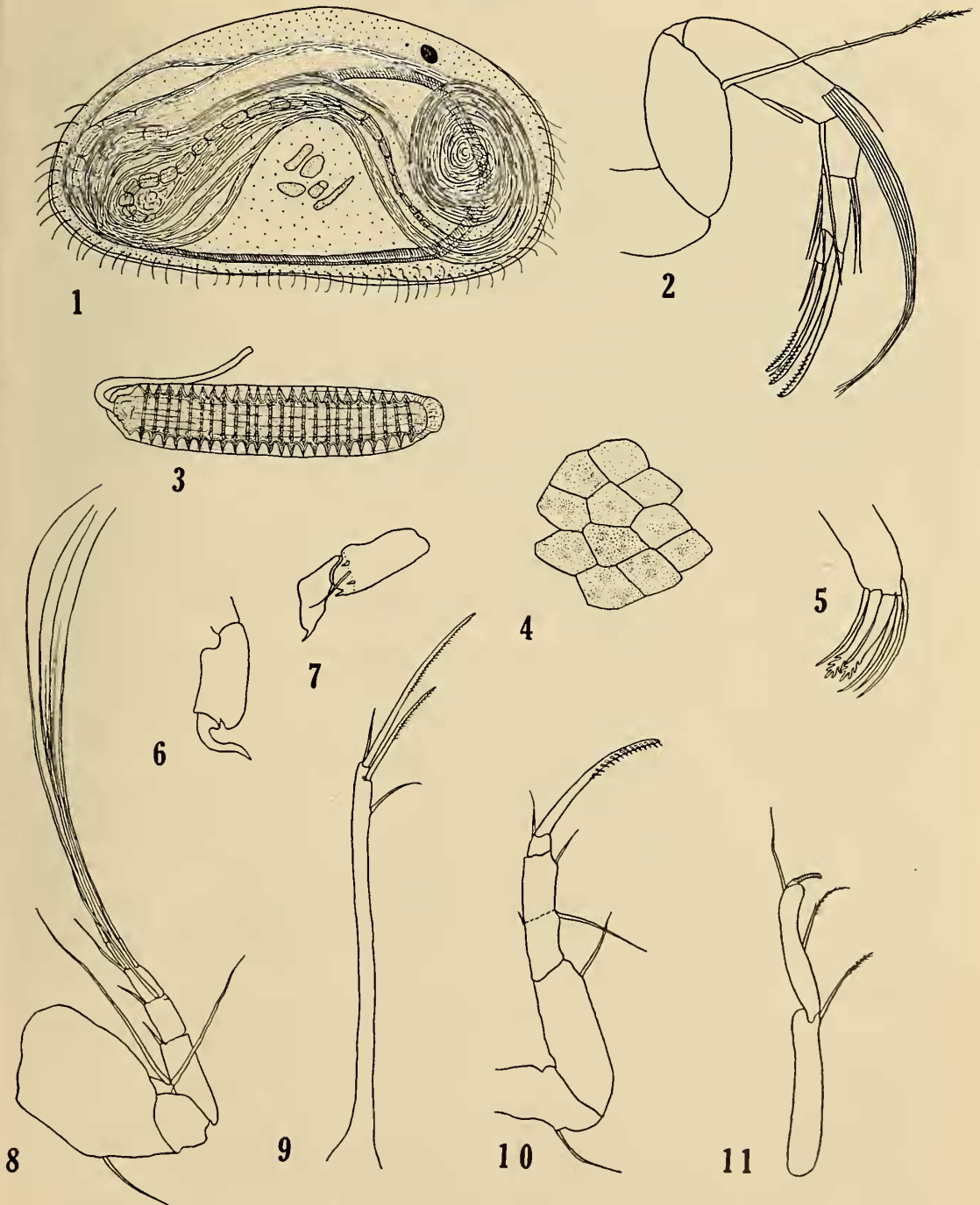
Cypricercus serratus, n. sp.

Figs. 1-11

Specific characters.—**MALE** from the side: Height equal to about five-ninths the length, highest in the middle, well arched dorsal margin, anterior end extremely broadly rounded, posterior end less so, ventral margin slightly sinuated in the middle, hyaline margins narrow with a few scattered hairs. From above: Moderately compressed, left valve extends beyond right in front. Surface of valves smooth, with very few hairs; a few scattered polygonal markings. Testis with marked spiral coil in anterior valve chamber connected to four bands and U-shaped coils in posterior chamber. Natatory setae of second antennae reach to tips of terminal claws. Maxillary spines heavily toothed. Prehensile palps, unequally developed, the right with propodus twice as long as greatest distal width, dactylus enlarged dorsally; left palp with propodus cylindrical, twice as long as wide, dactylus short and hook shaped. Terminal claw of first leg short and well developed with heavy spines along its distal half. Second leg typical for the genus. Furcal ramus long, slender and slightly curved; length 25 times the narrowest width, dorsal margin smooth; terminal claw equal to about half the length of the furca; terminal seta one-third the length of the terminal claw; dorsal seta slightly longer than terminal seta and removed from subterminal claw by about $1\frac{1}{2}$ times the width of the ramus. Ejaculatory duct long and cylindrical, with 24 whorls. Length 1.08 mm, height 0.69 mm.

FEMALE: Unknown.

Occurrence.—Type locality, Medicine Bow Mountains, Wyo. (moraine pond), at an altitude of 10,200 feet. Two males were taken by Dr. Irving H. Blake on July 4, 1936. Holotype, U. S. N. M. no. 90739.



FIGS. 1-11.—*Cypricercus serratus*, n. sp.: 1, Lateral view, male; 2, second antenna, male; 3, ejaculatory duct, male; 4, surface markings on valve, male; 5, masticatory process of maxilla, male; 6, left prehensile palp, male; 7, right prehensile palp, male; 8, first antenna, male; 9, furcal ramus, male; 10, first thoracic leg, male; 11, second thoracic leg, male.

KEY

CHARACTERS

1. Surface of valves smooth, delicately haired.
2. smooth, densely haired.
3. with wartlike tubercles or spines, few hairs.
4. with wartlike tubercles or spines, densely haired.
5. with raised network of reticulations.
6. Length of valves greater than 1.00 mm.
7. less than 1.00 mm.
8. Ejaculatory duct of male with less than 30 whorls.
9. with 30 or more whorls.
10. Natatory setae of second antennae reaching to tips of claws or beyond.
11. not reaching to tips of claws.
12. Furcal ramus straight.
13. curved or S-shaped.
14. Spines on third maxillary process smooth.
15. toothed or denticulated.
16. Terminal claw of furcal ramus less than one-half length of ramus.
17. at least one-half length of ramus.
18. Terminal seta of furcal ramus less than one-half length of terminal claw.
19. greater than one-half length of terminal claw.
20. Prehensile palps of second thoracic leg equally developed.
21. unequally developed.

FORMULAE

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|-------------------------|--|
| 1-6-8-10-13-15-17-18-21 | <i>serratus</i> Tressler, 1950. Length 1.36 mm; height 0.69 mm., moraine pond, 10,200 feet elevation, Wyoming. |
| 1-6-8-11-15 | (7) <i>episphaena</i> Müller, 1908. Length 1.60 mm; height 0.65 mm. Africa, Brazil. |
| 1-6-9-13-15-16-18-21 | (3) <i>dentifera</i> Dobbin, 1941. Length 2.00 mm; height 1.04 mm. Pond, Washington. |
| 1-6-9-13-16-18-21 | (9) <i>cuneatus</i> Sars, 1895. Length 1.60 mm; height 0.70 mm. Africa. |
| 1-6-10-13-15-17-18 | (16) <i>rotundus</i> Tressler, 1950. Length 1.08 mm; height 0.63 mm. Lakelet, Brazil. |
| 1-6-10-13-17-18 | (3) <i>elongata</i> Dobbin, 1941. Length 1.82 mm; height 0.78 mm. Ponds, lakes, Washington. |
| 1-6-10-13-17-19-21 | (3) <i>columbiensis</i> Dobbin, 1941. Length 1.27 mm; height 0.60 mm. Pond, Washington. |
| 1-6-10-15-16-18 | (12) <i>obliquus</i> (Brady, 1866. Length 1.26 mm; height 0.70 mm. Europe. |
| 1-6-10-15-17-18 | (12) <i>affinis</i> (Fischer), 1851. Length 1.20 mm; height 0.67 mm. Europe, Ohio, Illinois, Mexico, Alaska, Ontario. |
| 1-6-13-15-16-18 | (7) <i>maculatus</i> Müller, 1908. Length 1.50 mm; height 0.67 mm. Africa. |
| 1-7-8-10-13-15-16-18-21 | (6) <i>mollis</i> Furtos, 1936. Length 0.80 mm; height 0.44 mm. Florida. |
| 2-6-10-17-19 | (13) <i>passaica</i> (Sharpe), 1903. Length 1.60 mm; height 0.80 mm. Massachusetts, New Jersey. |
| 2-6-11-14-16-18 | (12) <i>hirsutus</i> (Fischer), 1851. Length 1.10 mm; height 0.55 mm. Sweden, Russia, Pribilof Islands. |
| 3-6-8-10-13-15-17-18-21 | (5) <i>tincta</i> Furtos, 1933. Length 1.50 mm; height 0.90 mm. Ohio, Michigan. |
| 3-7-10-16-18 | (14) <i>tuberculatus</i> (Sharpe), 1908. Length 0.93 mm; height 0.53 mm. Illinois, Indiana. |
| 4-6-9-10-13-15-17-18-21 | (5) <i>splendida</i> Furtos, 1933. Length 1.75 mm; height 0.80 mm. Ohio, Massachusetts, New York. |
| 4-6-10-12-16-18 | (11) <i>horridus</i> Sars, 1926. Length 1.05 mm; height 0.57 mm. Ontario. |
| 4-6-11-15-17-18 | (12) <i>fuscatus</i> (Jurine), 1820. Length 1.50 mm; height 0.82 mm. Europe, Illinois, Ohio, Georgia, Delaware, Massachusetts. |
| 5-6-12-19 | (2) <i>reticulatus</i> Daday, 1898. Length 1.30 mm; height 0.68 mm. Ceylon, Illinois, Virginia, Maryland. |

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ZOOLOGY.—*A new species of the gorgonacean genus Ainigmaptilon Dean (Coelenterata: Octocorallia)*.¹ FREDERICK M. BAYER, U. S. National Museum.

Carlgregen (1943) has recently published a study of the peculiar octocorallian genera *Ainigmaptilon* Dean and *Lycurus* Molander, in which he reached the conclusion that the two are identical, with Dean's name taking precedence. At the same time he described the new species *Ainigmaptilon wallini*, bringing the number of known forms to four. He also was of the opinion that the genus should be treated as a special family rather than as a subfamily of the Primnoidae as proposed by Molander (1929), and with this view I thoroughly agree. A very distinct new species of *Ainigmaptilon*, which presents additional evidence that Carlgregen's interpretation is correct, was collected for the Smithsonian Institution by Cmdr. David C. Nutt during the U. S. Navy Antarctic Expedition, 1947-48.

¹ Published by permission of the Secretary of the Smithsonian Institution. Received May 25, 1950.

Family AINIGMAPTILIDAE Carlgregen, 1943

Lycurinae Molander, 1929, p. 70.

Ainigmaptilonidae Carlgregen, 1943, p. 7.

† *Diagnosis*.—Gorgonaceans with more or less strongly calcified horny axis; polyps borne on expanded, unsupported, simple or branched "polyp-leaves"; spicules as thin scales; operculum developed.

Genus *Ainigmaptilon* Dean

Ainigmaptilon Dean, 1926, p. 337; Carlgregen, 1943, p. 1.

Lycurus Molander, 1929, p. 66.

As has been pointed out independently by the authors of both names for this genus, *Ainigmaptilon* bears a striking superficial resemblance to certain pennatulids: the polyps are carried on biserial, leaflike, branched or unbranched lateral outgrowths without axial support, as in *Virgularia*. This pennatulidlike effect was heightened, in the first specimen described, by the absence of a horny axis (which had probably been torn out when the colony was dredged from the